



ATTACHMENT A

REMARKS

Considering the matters raised in the Office Action in the same order as raised, applicant respectfully requests reconsideration of the withdrawal of claims 25-33. The Examiner states that claims 25-33 are "evidenced claims" that having a particular recitation "is not required for patentability." It is respectfully submitted that this contention is completely unwarranted. Claims may be patentable for different reasons and claims 25-33 are separately patentable from claims that include the recitation in question. However, claims 19-24 are also separately patentable for reasons different from those, or in addition to those, for which claims 1-18 are patentable. Moreover, claims 25-33 include patentable subject matter in common with claims 19-24 and should be examined along with claims 19-24. Certainly any search of the subject matter of claims 19-24 would overlap or be in common with a search for the subject matter of claims 25-33. It is noted that the Examiner has not given any reasons for withdrawal of claims 25-33 other than the fact that claims 25-33 are directed to features that may be separately patentable from those of claims 1-18, and given that claims 19-24 and 25-33 would be commonly classified and a separate search would not be required, reconsideration of the withdrawal of claims 25-33 is respectfully requested.

Claims 16-17 and 20-24 have been rejected under 35 USC 112, second paragraph, as being "indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention."

The claims have been amended to overcome this rejection. Specifically, claim 16 has been canceled and claim 17 has been made to depend from claim 15. Further, the preambles of claims 20-24 have been amended so as to be commensurate with the preamble of parent claim 19. The Examiner is thanked for pointing out these informalities and it is respectfully submitted that the rejection under 35 USC 112, second paragraph, can now be properly withdrawn.

Claims 1-16, 10 and 11 have been rejected under 35 USC 103(a) as being "unpatentable over" the Pugliese and Francois patents. This rejection is respectfully traversed.

The Pugliese patent discloses "a protective structure for ships and, in particular, for protecting the hulls of ships and vessels from being damaged by the impact or explosion of submarine mines." The structure is "of the kind in which chambers or tanks are provided along each side of the hull, such chambers serving to absorb the energy of the explosion." The tanks of Pugliese are "fitted and firmly supported in a convenient manner, at each side of the ship" by means of recesses "e" formed in the sides of the ship. The Pugliese patent specifically provides that the internal chamber of the tanks ("b") "is filled with any liquid substance such as salt water, oil or the like wherein the internal chambers will be left vacant or filled with an extremely compressible substance having a very low density such as cork or the like."

The Francois patent relates to "hollow shell-like bodies made of filament-reinforced resin and suitable for use in deep submergence applications such as underwater research and exploration, detection and defense against submarines, etc." The "fundamental object" of the Francois invention "is to provide cylindrical deep submergence vessels capable of withstanding high external hydrostatic pressures, possessed of relatively high ratios of compressive strength to weight and of elastic stability to weight and a relatively low ratio of weight to displacement, and having a high payload capability" (see lines 35-41 of column 1).

It is respectfully submitted that the proposed combination of the Pugliese and Francois patents is clearly the improper product of hindsight. As indicated above, Pugliese relates to protecting structures for ships that form part of the ships themselves while the Francois patent discloses deep submergence vessels for underwater use. The purposes and devices of the two patents are totally unrelated and again, it is clear that the combination here is necessarily based on hindsight derived from a familiarity with the present application.

Moreover, it is respectfully submitted that Pugliese does not disclose a "free floating floatation unit" as claimed in claim 1 and that the tanks "b" of Pugliese are not free floating floatation units. In this regard, as an example, referring to preferred embodiments of the invention, while floatation device 10 is, in some embodiments, used in combination with other floatation devices 10 as part of a structural unit, as shown in Figures 2 and 3, the floatation devices themselves are always free floating. In contrast,

the tanks of the Pugliese patent are always mounted on the ship and are clearly not free floating. Moreover, while it is possible that these tanks, if separated from the ship, would float, this is not stated in the Pugliese patent and would, of course, depend on the weight of the material used to depend, on the weight of the material used to make the tank walls. In this regard, these walls could be quite thick and heavy, given their function of preventing damage from explosives or impacts from torpedoes. The Francois patent specifically relates to submersible vessels and has nothing to do with free floating floatation units. Moreover, the teachings of the Francois patent would simply not be consulted in addressing problems with free floating floatation units.

Further, claim 1 also provides that the floatation medium within the outer cavity of the floatation device is a non-liquid floatation medium. This again, clearly defines over the Pugliese patent wherein, as noted above, Pugliese specifically provides for the use of a liquid in the outer chamber. The use of a liquid is consistent with the use of the tank in Pugliese in preventing damage from explosions or impacts from torpedoes or the like, in contrast, for example, with the use of a polymeric foam or the like.

Of course, the Examiner relies on the Francois patent as disclosing "a non-floatation medium (25) in a cavity and inner shell being made out of plastic polymer material (24)." However, given that the Francois patent relates to submergence vessels and the teachings thereof are totally unrelated to those of Pugliese, it is respectfully submitted that the proposed combination is, again, the improper product of hindsight. The Examiner states that it "would have been considered obvious to one of ordinary skill in the art to modify Pugliese by substituting the cavity means and inner shell material as taught by Francois for the cavity means and inner shell material disclosed by Pugliese in order to increase protection of the hull without having messy oil spill in the event the structure is damaged and prevent deterioration of the shell member." It is respectfully submitted that this conclusion is completely self-serving and that there is nothing about the teachings of the Francois patent relating to submergence vessels that would lead one of ordinary skill in the art to adopt any of these teachings in the Pugliese structure.

Claims 7-9 and 12-14 have been rejected under 35 USC 103(a) as being "unpatentable over" the Pugliese and Francois patents "and further in view of Wooley et al. '325" (Wooley). This rejection is respectfully traversed.

First, these claims are clearly patentable for at least the reasons set forth above in support of the claims parent thereto. Moreover, it is respectfully submitted that the combination of the three references here is clearly the improper product of hindsight. Wooley relates to barrier unit structures that are wholly separated from a ship and surround the ship in use. This has nothing to do with the teachings of either the Pugliese patent or the Francois patent.

Claims 15-17 have been rejected under 35 USC 103(a) as being "unpatentable over" the Potter and Pugliese patents. This rejection is respectfully traversed.

The Potter patent relates to a portable floating wave tripper and the teachings thereof have nothing to do with the ship hull protecting structure of Pugliese. The wave tripper or breakwater in Potter is used for moderating waves and for creating a generally calm surface on the water behind the break water. This is clearly unrelated to protecting the hull of a ship against explosives and torpedoes and the Potter wave tripper would obviously be ineffective for such a purpose. Moreover, the protective tanks of Pugliese are part of the ship hull, are not freely floating floatation units and simply would not be employed in Potter without improper resort to hindsight. Thus, it is respectfully submitted that the propose combination is an improper one and the rejection of claims 15-17 should be withdrawn.

Claim 18 has been rejected under 35 USC 103(a) as being "unpatentable over" Potter in view of Pugliese "and further in view of Kasai et al" (Kasai) while claims 19-23 have been rejected under 35 USC 103(a) as being "unpatentable over" the same combination of references. These rejections are respectfully traversed.

Kasai relates to a floating type "anti-oil, anti-impact, anti-wave barrier" wherein a series of barrier bodies 10 are connected together. These teachings have nothing to do with the ship hull mounted protective structures of Pugliese. Further, and this applies to claim 15 as well, the Potter patent does not disclose "at least two triangular members interconnected by longitudinally extending members" (emphasis added) as contended by the Examiner. Although the Examiner has not identified the elements of Potter being relied on here, it is noted that supports 18 are trapezoidal in shape and not triangular. For these reasons and the reasons discussed above in connection with the rejection of claims 15-17, it is respectfully submitted that these rejections should be withdrawn.

Allowance of the application in its present form is respectfully solicited.

END REMARKS